

## **REMARKS**

Claims 1, 2, 4, 10, 11, 13-18, 22-24, 26-31, 35-37 and 39 have been amended. No claims have been added or canceled. Therefore claims 1-39 remain pending in the application. Reconsideration is respectfully requested in view of the following remarks.

### **Section 112, Second Paragraph, Rejection:**

The Examiner rejected claims 1, 4, 14, 17, 27 and 30 under 35 U.S.C. § 112, second paragraph. Applicant traverses the rejection for at least the following reasons.

The Examiner states that the pronoun “such that” is not permitted in the claims. However, the term “such that” is not a pronoun. Instead, the term “such that” is part of an adverbial clause. For example, in claim 1 the clause “such that the one or more enhanced classes are enhanced to persist the data to be persisted according to the persistence structure” is an adverbial clause describing how the one or more enhanced classes are generated. The term “such that” is not a pronoun. Applicant asserts that one of ordinary skill in the art would have no trouble discerning the metes and bounds of claims 1, 14 and 27.

The Examiner also objects to the use of the term “such as” in claims 1, 14 and 27. However, the term “such as” does not appear in claims 1, 14 and 27. Thus, the Examiner’s rejection is improper.

The Examiner also objects to the use of the term “that” in claims 4, 17 and 30 as a pronoun. However, the term “that” is not used as a pronoun in claims 4, 17 and 30. In the English language, the term “that” can be used either as a pronoun or as an adjective. In claims 4, 17 and 30, the term “that” is used as an adjective. For example, the phrase “that includes results of the analysis of the structure of the one or more classes” is an adjective clause that modifies the “metadata”. Applicant asserts that one of ordinary skill in the art would have no trouble discerning the metes and bounds of claims 4, 17 and 30.

Applicant respectfully reminds the Examiner that the relevant case law and the M.P.E.P. allows Applicants leeway in claim language. Applicant refers the Examiner to M.P.E.P. 2173.01:

Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought...a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

And to M.P.E.P. 2173.02:

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is **whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available**. When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. **Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire**. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but **should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement**.

The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

Applicant asserts that claims 1, 4, 14, 17, 27 and 30 are clearly definite. Accordingly, removal of the § 112, second paragraph, rejection is respectfully requested.

### **Section 101 Rejection:**

The Examiner rejected claims 14-39 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Applicant traverses the rejection for at least the following reasons.

In regard to claim 14, Applicant asserts claim 14 recites a practical application with a useful, concrete and tangible result. The computer implemented method recites the generation of one or more enhanced classes such that the one or more enhanced classes are enhanced to persist the data according to the persistence structure. Applicant asserts that the generation of one or more enhanced classes which are enhanced to persist data, is clearly a useful, concrete and tangible result.

Applicant respectfully reminds the Examiner of *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) where the court stated that the relevant claim was statutory because “the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application ... because it produces ‘a useful, concrete and tangible result’ – a final share price”. The one or more generated enhanced classes of claim 14 is clearly just as much of a useful, concrete and tangible result as the final share price in *State Street*. Therefore, the rejection of claim 14 is improper.

Applicant also refers the Examiner to *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999). The claim in the *AT&T* case was a method claim reciting “generating a message record” and was held to be statutory. Applicant respectfully requests the Examiner to explain how claims that refer only to means for processing data in a computer system (as in *State Street*) or a method comprising generating a message record (as in *AT&T*) meet the requirements of § 101 whereas Applicant’s claims do not. The method claim including “generating a message record” in *AT&T* was specifically held to be statutory by the U.S. Court of Appeals for

the Federal Circuit. Thus, claim 14 which recites “generating one or more enhanced classes” is also statutory.

In regard to claim 27, Applicant asserts that remarks similar to those presented above in regard to claim 14 apply to claim 27. Furthermore, the Examiner asserts claim 27 is not statutory since a claimed signal is not a process under § 101. Applicant traverses the rejection. Nevertheless, in order to expedite prosecution, claim 27 has been amended to recite “a computer-accessible storage medium.”

### **Section 102(e) Rejection:**

The Examiner rejected claims 1, 4, 7, 10, 14, 17, 20, 23, 27, 30, 33 and 36 under 35 U.S.C. § 102(e) as being anticipated by Boyle et al. (U.S. Publication 2003/0051229) (hereinafter “Boyle”). Applicant respectfully traverses this rejection for at least the following reasons.

In regard to claim 1, Boyle fails to teach or suggest a class structure based data object enhancer configured to analyze the structure of one or more classes to determine a persistence structure for data of the one or more classes to be persisted **and** generate one or more enhanced classes corresponding to the one or more classes such that the one or more enhanced classes are enhanced to persist the data according to the persistence structure. Thus, according to claim 1, the class structure based data object enhancer a.) determines a persistence structure and b.) generates one or more enhanced classes such that the one or more enhanced classes are enhanced to persist the data according to the persistence structure. Boyle clearly fails to teach or suggest these specific limitations of claim 1.

The Examiner asserts Boyle teaches the limitations of claim 1 and cites paragraphs [0024] – [0030]. However, the cited art merely describes an implementation of application class extension in which a “class factory can look up the metadata of any class by name or ID, then can use that information to properly construct a new instance of

the class including the extended properties of the class[.] The present invention allows an application to add new properties to the metadata of a class, which will alter the structure of instances constructed by the class factory” (Paragraph 25, lines 10-16). In other words, Boyle teaches a system that enables the addition of properties to a class by altering the metadata of the class. Additionally, Boyle discloses that “the present invention also includes managing storage for dynamically defined class properties” (Paragraph 30, lines 1-2). However, altering metadata to add properties to a class and managing storage for the added properties is not the same as determining a persistence structure for data of one or more classes to be persisted **and** generating one or more enhanced classes corresponding to the one or more classes such that the one or more enhanced classes are **enhanced to persist the data according to the persistence structure**. Contrary to the Examiner’s assertion, Boyle fails to teach or suggest these specific limitations of claim 1. Thus for at least the reasons presented above, Applicant asserts the rejection of claim 1 is unsupported by the cited art and removal thereof is respectfully requested. Arguments similar to those presented above in regard to claim 1 apply to claims 14 and 27.

### **Section 103(a) Rejections:**

The Examiner rejected claims 2, 3, 5, 12, 15, 16, 18, 25, 28, 29, 31 and 38 under 35 U.S.C. § 103(a) as being unpatentable over Boyle in view of Chan et al. (U.S. Patent 6,633,892), and claims 6, 8, 9, 11, 13, 19, 21, 22, 24, 26, 32, 34, 35, 37 and 39 as being unpatentable over Bole in view of Vachuska et al. (U.S. Publication 2004/0044687) (hereinafter “Vachuska”). Applicant traverses these rejections for at least the following reasons.

In regard to claim 2, the Examiner admits that Boyle fails to disclose “wherein to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the one or more classes.” The Examiner relies on Chan to disclose this limitation. However, Chan fails to teach or suggest analyzing the structure of classes through the use of Java reflection calls to input classes. In fact,

the cited portion of Chan (column 4, line 43 – column 5, line 14) fails to mention anything at all about Java reflection calls much less Java reflection calls to input classes in order to analyze the structure of the classes. Instead, Chan discloses various phases of execution for a Java program including program compilation and class loading. However, Chan is silent in regard to using Java reflection calls to analyze the structure of classes.

Furthermore, Applicant asserts the Examiner has failed to state a proper reason to combine the teachings of Chan with the teachings of Boyle. The Examiner asserts “the motivation being to translate the java program code into java bytecodes, which are instructions for a virtual computer, called the java virtual machine and class files may store in memory.” The Examiner has merely restated a feature of the teachings of Chan (Column 4, lines 43-46). However, one seeking this specific feature of Chan would simply use the teachings of Chan alone. Also, the Examiner’s reason has nothing to do with the limitations of Applicant’s claim 2.

Finally, even if the teachings of Chan were somehow to be combined with those of Boyle, at most this would result in a system in which Boyle’s application class extension is operable to implement the compiling and class loading features described by Chan. However, Applicant submits that this would still not render the combination of limitations of claim 2 obvious, since neither Boyle nor Chan, taken singly or in combination, teach “to analyze the structure of the classes, the class structure based enhancer is configured to make one or more Java reflection calls to the one or more classes”, as recited in claim 2. Thus, for at least the reasons presented above, the rejection of claim 2 is unsupported by the cited art and removal thereof is respectfully requested. Arguments similar to those presented above in regard to claim 2 apply to claims 15 and 28.

Applicant also asserts that numerous other ones of the dependent claims rejected under §102 and §103 recite further distinctions over the cited art. However, since the

rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

## CONCLUSION

Applicant submits the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicant hereby petitions for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-72300/RCK.

Also enclosed herewith are the following items:

- ☐ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,

/Robert C. Kowert/

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